Office of the City Auditor
City of San Diego

Fire-Rescue Department's Emergency Medical Dispatch Process:

Changes to Fire-Rescue Dispatch Procedures Can Reduce Response Time By Up To One Minute

Presentation to the Audit Committee
March 5, 2012

OCA

Independent · Objective · Accurate

Findings

- Assigning Fire-Rescue units at the same time as ambulances could, on average, reduce response time by up to one minute

- Fire-Rescue Can Improve the Measurement and Reporting of Emergency Response Times

Processing 911 Medical Calls

911 Call

- 911 calls sent to Police Headquarters

- Fire or medical emergency are transferred to the Fire Communication Center (FCC)

EMD

- For medical calls, an ambulance is assigned immediately

- The call taker asks a series of questions to determine the severity of the medical incident (EMD)

- A Fire-Rescue unit is assigned to high priority calls, providing a second paramedic (County Requirement)

Fire Dispatch Activity

- Fire personnel processed over 118,000 incidents in the City (FY2011).

- Over 85% of dispatches are medical in nature

- Approximately 82% of medical calls result in the dispatch of a Fire-Rescue first-responder unit

Measuring Performance

- **Dispatch time** – starts at phone pickup and ends when emergency units are notified of the incident

- **Turnout time** – the interval between notification and departure to the scene of an incident

- **Travel time** – begins when the unit departs to the scene and ends when it arrives at the incident

Measure	City Standard (90% of the time)	Actual Performance	Actual Time Within Which 90% of San Diego Calls Were Met
Dispatch Time: Time from Pickup to Unit As	1 minute	12%	**3 minutes 1 second**
Turnout Time: Time from Unit Assigned to Unit Enroute	1 minute 30 seconds	**90%**	**1 minute 28 seconds**
Travel Time: Time from Unit Enroute to Unit Arrival at Medical Scene	5 minutes	76%	6 minutes 13 seconds
Overall Time: Time from Phone Pickup to Arrival On Scene	7 minutes 30 seconds	69%	9 minutes 27 seconds

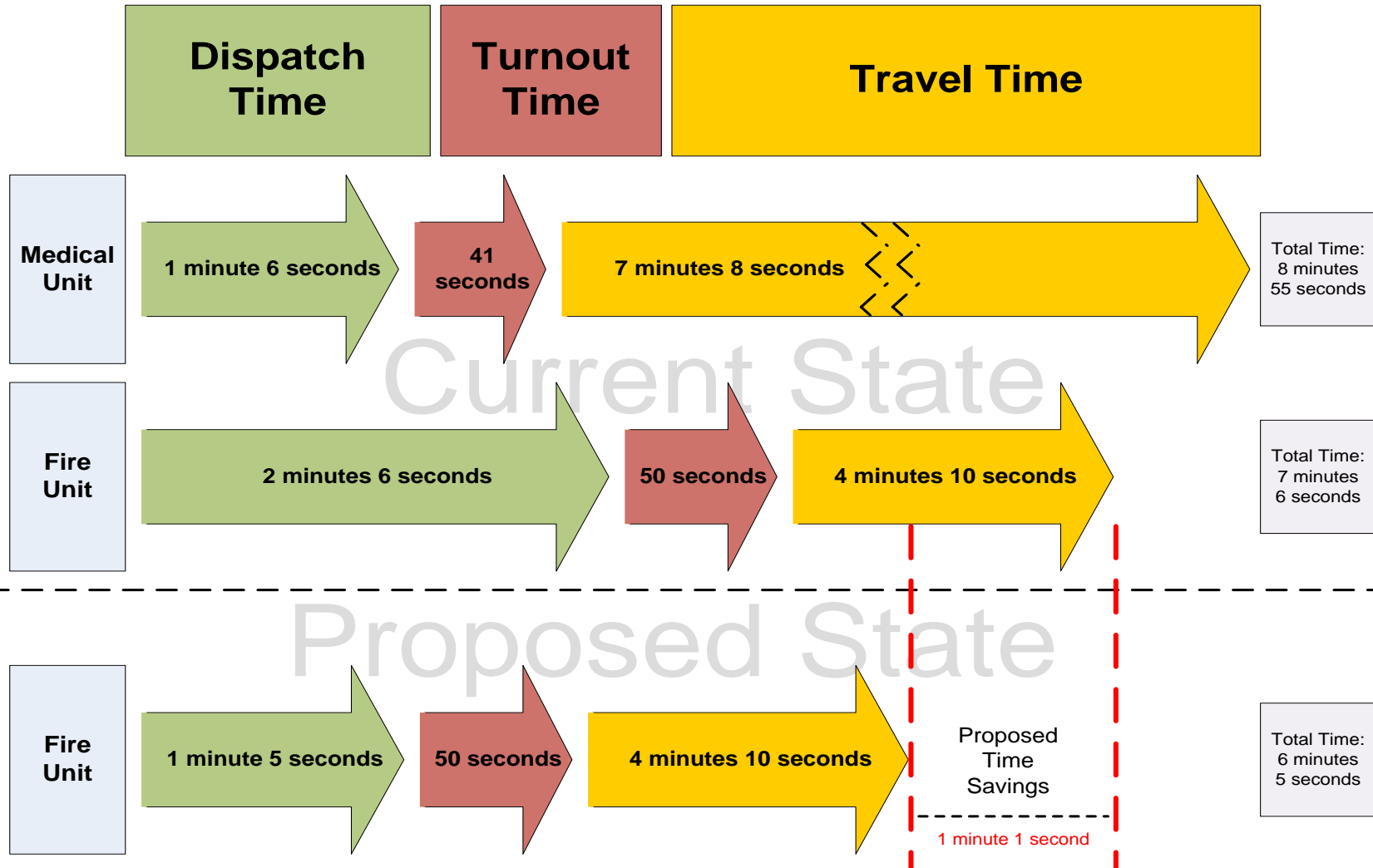# *Finding 1: Fire-Rescue Has Options to Reduce Medical Response Time*

- Option 1 –
  - Assigning and deploying Fire-Rescue units to all emergency medical calls when an ambulance is assigned
    - Easy integration into current dispatch processes
    - Increased operational cost – fuel, vehicle usage
- Option 2 –
  - Implementing a pre-notification and deployment order process for Fire-Rescue units
    - Requires adjustment to current dispatch processes
    - No additional fuel, vehicle usage cost

Impact of Process Improvement

Dispatch Time	Turnout Time	Travel Time

Medical Unit

1 minute 6 seconds → 41 seconds → 7 minutes 8 seconds →
Total Time: 8 minutes 55 seconds

Current State

Fire Unit

2 minutes 6 seconds → 50 seconds → 4 minutes 10 seconds →
Total Time: 7 minutes 6 seconds

Proposed State

Fire Unit

1 minute 5 seconds → 50 seconds → 4 minutes 10 seconds →

Proposed Time Savings

1 minute 1 second

Total Time: 6 minutes 5 seconds

Improved Performance

__Earlier__ first responder assignment = Earlier arrival

Measure	City Standard	Actual Performance	Actual Time Within Which 90% of San Diego Calls Would Be Met
Dispatch Time: Time from Pickup to First-Responder Unit Assigned			
Current Practice	1 minute	12%	3 minutes 1 second
Proposed Practice	1 minute	**59%**	1 minute 44 seconds
Overall Time: Time from Phone Pickup to Arrival On Scene			
Current Practice	7 minutes 30 seconds	69%	9 minutes 27 seconds
Proposed Practice	7 minutes 30 seconds	**82%**	8 minutes 22 seconds

Finding 2: Fire-Rescue Can Improve Emergency Response Time Reporting and Measurement

- Reporting can be strengthened by:
  - Measuring and reporting more detailed data

  - Analyzing data to identify trends

  - Utilizing results to identify opportunities to streamline and improve performance

Recommendations

- **Recommendation 1:**
  - ◆ The Fire-Rescue Department should implement the pre-notification and deployment order option (option two) to reduce the overall response time for medical calls

- **Recommendation 2:**
  - ◆ Fire-Rescue should strengthen its monthly measurement and reporting of dispatch data, analyze data to identify trends, and utilize the results of the analysis to identify opportunities to streamline and improve overall performance

Recommendations

- The Fire-Rescue Department agreed to both recommendations
  - The Department chose to implement option 1 for earlier assignment

- We would like to thank the Fire-Rescue Department for their cooperation throughout the audit process

Questions / Contact

Questions?

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